

In the Claims:

1. (allowed) A crystallized bottleneck of a polyester beer bottle, wherein the crystallized bottleneck has no machined screw thread and wherein a crystallized length of the bottleneck portion is in a range of 0.5-35 mm.

2. (allowed) A crystallized bottleneck of a polyester beer bottle according to claim 1, wherein said crystallized length of the bottleneck portion is in a range of 0.5-10 mm.

3. (allowed) A crystallized bottleneck of a polyester beer bottle according to claim 1, wherein said bottleneck is made with a polyethylene terephthalate material.

4. (allowed) A crystallized bottleneck of polyester beer bottle according to claim 1, wherein a flanged ring is provided to said crystallized bottleneck of the polyester beer bottle, and said flanged ring has a plane bottom surface at a proper position spacing from a top flange of the bottleneck; the upper surface of the flanged ring is an acclivitous plane; the acclivitous plane forms an angle of 45° from the vertical direction and converges to the outer surface of the bottleneck portion.

5. (previously amended) A method for manufacturing a crystallized bottleneck of a polyester beer bottle, comprising the steps of:

forming a blank of a bottle made of polyester material through drying;

ejecting the polyester material and shaping said ejected polyester material through cooling,

thereby forming an uncrystallized blank of a bottle;

placing the uncrystallized blank of the bottle for 24-72 hours in an air-conditioned environment;

preheating a crystallizer for at least two hours prior to crystallizing the blank of the bottle;

loading a bunker with the uncrystallized blank of the bottle;

delivering to an blank horse's head via a conveyor belt;

sending a bottleneck portion of the uncrystallized bottle blank into said crystallizer to heat the bottleneck portion at a high temperature and crystallize the bottleneck portion via an arbor transmission chain;

at the same time, controlling the temperature of the uncrystallized portion of the blank body, so that the uncrystallized portion of the blank body is not affected by the high temperature environment of the crystallizer;

discharging the polyester bottle blank having a crystallized bottleneck portion through an output blank horse's head;

and delivering to another conveyor belt to cool and shape the polyester bottle blank.

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6. (previously amended) A method according to claim 5, wherein before said bunker is loaded with the uncrystallized blank, the temperature of the bottle blank is controlled by an arbor temperature controller; and, after the uncrystallized bottleneck portion of the bottle blank is fed into the crystallizer, the temperature of the bottle blank is controlled by a bottleneck temperature

controller.

7. (previously amended) A method according to claim 6, wherein when said bunker is loaded with the uncrystallized blank, the temperature of the bottle blank is controlled in a range of 120–150°C.

8. (original) A method according to claim 6, wherein the uncrystallized bottleneck portion of the bottle blank is fed into the crystallizer, the temperature of the bottle blank is controlled in a range of 130-170°C by a bottleneck temperature controller.

9. (previously amended) A method according to claim 5, wherein the crystallization time required for each bottle blank is controlled in a range of 90-120 sec.

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10. (cancelled)]

11. (allowed) A crystallized bottleneck of a polyester beer bottle according to claim 2, wherein said bottleneck is made with a polyethylene terephthalate material.

12. (allowed) A crystallized bottleneck of a polyester beer bottle according to claim 2, wherein a flanged ring is provided to said crystallized bottleneck of the polyester beer bottle, and said flanged ring has a plane bottom surface at a proper position spacing from a top flange of the bottleneck; the upper surface of the flanged ring is an acclivitous plane; the acclivitous plane forms an angle of 45° from the vertical direction and converges to the outer surface of the

bottleneck portion.

¹²13. (allowed) A method according to claim 6, wherein the crystallization time required for each blank is controlled in a range of 90-120 sec.

¹³14. (allowed) A method according to claim 7, wherein the crystallization time required for each blank is controlled in a range of 90-120 sec.

¹⁴15. (allowed) A method according to claim 8, wherein the crystallization time required for each blank is controlled in a range of 90-120 sec.

¹⁵16. (allowed) A bottle, comprising:
a polyester body having a neck extending therefrom, the neck being crystallized with a length of about 0.5mm – 10mm, and wherein the neck does not have a machined screw thread.

¹⁶17. (new) A method for manufacturing a crystallized bottleneck of a polyester beer bottle, comprising the steps of:

forming a blank of a bottle made of polyester material through drying;

ejecting the polyester material and shaping said ejected polyester material through cooling,
thereby forming an uncrystallized blank of a bottle;

¹⁷placing the uncrystallized blank of the bottle for 24-72 hours in an air-conditioned environment;

preheating a crystallizer for at least two hours prior to crystallizing the blank of the bottle;

loading a bunker with the uncrystallized blank of the bottle;

delivering to an blank horse's head via a conveyor belt;

sending a bottleneck portion of the uncrystallized bottle blank into said crystallizer to heat the bottleneck portion at a high temperature and crystallize the bottleneck portion via an arbor transmission chain;

at the same time, while the bottle is crystallized in the crystallizer, the body portion of the bottle blank is protected from the high temperature environment of the crystallizer by using a cooling partition, controlling the temperature of the uncrystallized portion of the blank body, so that the uncrystallized portion of the blank body is not affected by the high temperature environment of the crystallizer;

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discharging the polyester bottle blank having a crystallized bottleneck portion through an 'output blank horse's head; and

delivering to another conveyor belt to cool and shape the polyester bottle blank.
